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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,154	06/16/2006	Manabu Kobayashi	128407	2556

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OLIFF & BERRIDGE, PLC
P.O. BOX 320850
ALEXANDRIA, VA 22320-4850

EXAMINER	
GRAHAM, CHANTEL LORAN	
ART UNIT	PAPER NUMBER
1797	
MAIL DATE	DELIVERY MODE
09/02/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/583,154	KOBAYASHI ET AL.	
	Examiner	Art Unit	
	CHANTEL GRAHAM	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed June 10, 2009 has been entered and fully considered.

2. The rejection under 35 USC § 102 and 103 is withdrawn in light of Applicant's amendments; applicant's arguments are moot.

3. The rejection under 35 USC § 112 for Claim 1 is withdrawn in light of Applicant's arguments.

4. Claim 1 has been amended.

5. Claims 1-19 are pending and have been fully considered.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 1-3 are rejected under 35 USC 103 (a) as being obvious over ALDRICH ET AL. (US PATENT 6008164), and in view of DECKMAN ET AL. (US PG PUB 20030158055). Hereby referred to as ALDRICH and DECKMAN.

Regarding claim 1-3:

ALDRICH teaches lubricant base oil prepared from a hydrocarbon wax having a mixture of hydrocarbons that range from normal paraffins to highly branched paraffins (col. 3 lines 50-51). Where the mixture has a carbon chain length of about C_{20} to about C_{40}, which overlaps the range of claim 1 (a); and a free carbon index of said branched paraffins is at least about 3, which falls within the range of claim 1 (b) (col. 2 lines 36-46).

The difference between ALDRICH and the currently presented claims is that the concentrations of ALDRICH does not fall within the ranges recited in claim 1 (a) or overlap the ranges recited in claim 1 (b). However, as discussed above, the ranges overlap or encompass the claimed ranges. "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976);" claim 1 (a) and (b) are therefore rendered obvious by ALDRICH.

ALDRICH also teaches in claim 4, that the base oil has a viscosity index of at least about 120, which falls within the range of claim 1 (c).

ALDRICH does not explicitly disclose a kniematic viscosity at 40°C is 17-25 mm^2/s, however DECKMAN does. DECKMAN discloses in paragraph 107 the paraffinic oil has a kinematic viscosity at 40°C approximately 22.7 cSt (a kinematic viscosity at 40°C is 17-25 mm^2/s).

ALDRICH teaches lubricant base oil prepared from a hydrocarbon wax can originate from synthetic waxes from Fischer-Tropsch (obtained from an isomerization of a starting straight-chain hydrocarbon material) (wherein the starting straight-chain hydrocarbon material is a Fischer-Tropsch synthetic wax) (col. 4 lines 9-12).

9. Claim 4-19, is rejected under 35 USC 103 (a) as being obvious over ALDRICH ET AL. (US PATENT 6008164), and in view of DECKMAN ET AL. (US PG PUB 20030158055), and in view of WITTENBRINK ET AL. (US PATENT 6506297). Hereby referred to as ALDRICH, WITTENBRINK and DECKMAN.

Claim 1-3 of the 103 (a) rejection above is hereby incorporated in this rejection.

Regarding claims 4-19:

ALDRICH does not explicitly teach the method of a Fischer-Tropsch synthetic wax having a 10% distillation temperature of not lower than 360°C to an isomerization under a condition that a decreasing ratio of a fraction having a boiling point of not lower than 360°C is not more than 40% by weight; however WITTENBRINK does.

WITTENBRINK teaches hydrocarbon base oils useful as lubricants in engine oil and industrial compositions, and process for their manufacture. A waxy, or paraffinic feed, particularly a Fischer-Tropsch wax, is reacted over a dual function catalyst to produce hydroisomerization and hydrocracking reactions, at 700°F.+ conversion levels ranging from about 20 to 50 wt. %, sufficient to produce a crude fraction, containing 700°F.+ isoparaffins. The methyl paraffins containing crude fraction is topped via atmospheric distillation to produce a bottoms fraction having an initial boiling point between about 650°F. and 750°F. which is then solvent dewaxed, and the dewaxed oil is then fractionated under high vacuum to produce biodegradable high performance hydrocarbon base oils (abstract; EXAMPLES 1-16 and A-C with corresponding TABLES).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify the lubricant base oil of ALDRICH; by incorporating the method of producing hydrocarbon base oils as of WITTENBRINK.

The motivation would have been to provide a process that is capable of increasing the oxidative stability of hydroisomerized Fischer-Tropsch waxes while producing a lubricant as taught by ALDRICH (col. 1 lines 59-61).

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. HAMNER (US PATENT 4832819) teaches a process for producing a lubricating oil from a Fischer-Tropsch wax containing, which process comprises: (1) separating the Fischer-Tropsch wax into (a) a low-boiling fraction and (b) a high-boiling fraction which is substantially free of water and oxygenate compounds, (2) reacting the high-boiling fraction from step (1) with hydrogen at hydroisomerization and mild hydrocracking conditions in the presence of a fluorided Group VIII metal-on-alumina catalyst to produce a C_5 + hydrocarbon product, and (3) combining the C_5 + hydrocarbon product from step (2) with the low-boiling fraction from step (1) to produce a lubricating oil (col. 2 line 60 – col. 3 line 26).

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

12. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHANTEL GRAHAM whose telephone number is (571)270-5563. The examiner can normally be reached on M-Th 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Micheal Marcheschi can be reached on 571-272-1374. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ellen M McAvoy/

Primary Examiner, Art Unit 1797